UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/344,863	06/28/99	SCHLUETER E	D/99006

EXAMINER
HON, S

ART UNIT	PAPER NUMBER
1772	12

IM52/0302

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DATE MAILED: 03/02/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary	Application No. 09/344,863	Applicant(s) SCHLUETER ET AL.	
	Examiner Sow-Fun Hon	Art Unit 1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-15,17-19 and 21-26* is/are pending in the application.

4a) Of the above claim(s) *26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-14,17 and 21-25* is/are rejected.

7)☒ Claim(s) *15* is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other: .

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 12/19/00 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/344,863 is acceptable and a CPA has been established. An action on the CPA follows.

Response to Amendment

Withdrawn Rejections

2. The 35 U.S.C 103(a) rejection of claims 1-3, 5-13, 16-18, 20-22, 24-25 over Tarumi et al. in view of Jonas et al. has been withdrawn due to Applicant's amendment in Paper #10 (filed 12/19/00).

3. The 35 U.S.C 103(a) rejection of claim 4 over Tarumi et al. in view of Jonas et al. and Chen et al. has been withdrawn due to Applicant's amendment in Paper #10 (filed 12/19/00).

4. The 35 U.S.C 103(a) rejection of claims 14-15 over Tarumi et al. in view of Krafft et al. has been withdrawn due to Applicant's amendment in Paper #10 (filed 12/19/00).

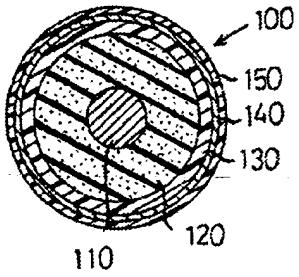
Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. The 35 U.S.C 103(a) rejection of claims 1, 4-13, 17-19, 21-25 over Tarumi et al. in view of Jonas et al. and Newkirk for the reasons previously of record in Paper # 3 (mailed 08/30/00). All three patents are rediscussed below for Applicant's convenience.

Tarumi et al. have a toner carrier (xerographic component) for an electrostatic printing machine, which is a roller (intermediate transfer roll) that carries toner onto a surface of the latent image carrier (abstract). Tarumi et al. teach a rotating shaft 110, an elastic layer 120 (substrate) made of rubber (polymer), a thin resin (polymer) cylinder 130, a conductive layer 140 and a toner carrying layer 150 made of non-conducting resin (polymer), (column 3, lines 35-42), as shown in the figure below.

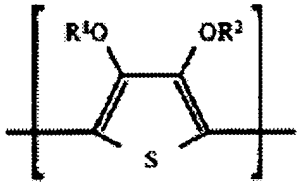
FIG. 1



Tarumi et al. teach that the conductive layer 140 can control an image by applying a bias voltage between the conductive layer and the electrode of the photosensitive member (column 3, lines 44-48), meaning that the conductive layer is capable of recieving a bias. Tarumi et al. teach that the thin resin cylinder 130 can be of fluororesin (fluoropolymer), (column 4, lines 13-17) Tarumi et al. and that the toner layer 150 can also be made from fluoropolymer (column 3, lines 56-68). Tarumi et al. teach that the toner carrier can be formed into a belt shape, (as an alternative to) not limited to the roller shape (column 7, lines 34-36). Tarumi et al., however, fail

to teach the use of polythiophene in the conducting layer 140, and the specific claimed fluoropolymer resin.

Jonas et al. have conductive coatings which are used in areas which require good electrical conductivities, for example picture production such as electrophotography (xerography) (column 3, lines 5-15). The coatings comprise of polythiophenes of the formula shown below



wherein the R1 and R2 can together form an optionally substituted C_{1-4} alkylene radical (cycloalkylene radical), preferably a methylene radical optionally substituted by alkyl groups, an ethylene-1,2 radical optionally substituted by C_{1-12} alkyl or phenyl groups, or a cyclohexylene-1,2 radical (abstract). Jonas et al. give a preferred thiophene example as 3,4-polyethylene dioxythiophene (column 5, line 2-3). Because Jonas et al. teach that these coatings are used in areas which require good conductivities such as electrophotography (xerography), one of ordinary skill in the art would have known to use them for the conductive layer of Tarumi et al. to obtain a highly conductive xerographic belt.

Newkirk has a fuser member (xerographic component) that fuses toner images to receivers (intermediate transfer component) by means of heat and pressure (column 1, lines 12-15). Newkirk et al. teach an internal heating source (element) in the fuser roll which is located within the roller core (column 8, lines 64-68). Newkirk et al. cite prior art which teach the use of

vinylidene fluoride-hexafluoropropylene-tetrafluorethylene polymers (column 2, lines 26-34) which can be cured with a crosslinking agent (monomer) (column 4, lines 19-24) to obtain the desired physical properties as known by one of ordinary skill in the art. Newkirk et al. teach that the member can be either a roller or a belt (column 1, lines 29-32). Because Newkirk et al. teach that the vinylidene fluoride-hexafluoropropylene-tetrafluorethylene polymers are desireable for use in a xerographic belt, it would have been obvious to one of ordinary skill in the art to have used the specific fluoropolymers of Newkirk et al. as the fluororesin polymer in the invention of Tarumi et al. to obtain a xerographic belt with the desired physical properties.

Therefore it would have been obvious to one of ordinary skill in the art to have used the materials of Jonas et al. and Newkirk in the invention of Tarumi et al. to obtain an improved xerographic belt.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tarumi et al. in view of Jonas et al. and Newkirk. All three patents have been discussed above. The examiner has taken the position that the polythiophene coating of Jonas et al. is adherent to the fluororesin layer of Newkirk et al. and therefore acts as an adhesive.

Allowable Subject Matter

8. Claim15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art neither teach nor suggest the use of a polystyrene sulfonic acid as an adhesive in ~~a~~ the recited xerographic belt component.

2.8.01

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary examiner, Rena Dye, can be reached on (703)308-4331. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

SH
02/28/01

RENA L. DYE
PRIMARY EXAMINER
Tech Center 1700